

Method and system for active monitoring of dependency models

FIELD OF THE INVENTION

This invention relates to event-driven systems and, in particular, to a method and system for modeling and managing business components and their inter-relationships.

BACKGROUND OF THE INVENTION

Reactive applications relate to a class of applications that are event-driven and configured to operate upon detection of events. The exact timing and content of such events are not usually known in advance. Many tools in different areas have been built to detect events, and to couple their detection with appropriate actions. These tools exist in products that implement active databases, event management systems, the "publish/subscribe" mechanism, real-time systems and similar products. Most current reactive systems respond to a single event. Many of these tools are based on Event-Condition-Action (ECA) rules and provide a language of operators for specifying these rules. Some of these languages enable complex events to be defined as the composition of multiple simple events, for example, successive withdrawals from one or more bank accounts. Some languages also allow a complex event to be composed of a number of subsidiary complex events. In addition, a particular order or other timing constraints on the component events may be specified.

Once the complex event has been detected there may be one or more conditions that qualify the event, for example, that the amounts of the withdrawal be greater than a specified threshold. If the conditions are satisfied, then an action is triggered, such as alerting the bank's security manager of a possible fraud. In the context of the present application, a specified composition of events together with the conditions attached to these events is referred to as a situation. Tools for specification of ECRules generally